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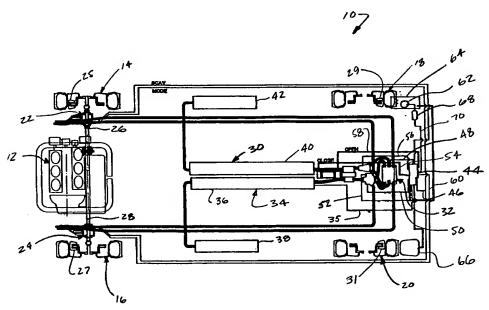
US 60/433,566 16 December 2002 (16.12.2002) 60/441,194 21 January 2003 (21.01.2003) US 60/452,714 10 March 2003 (10.03.2003) US 60/514.983 29 October 2003 (29.10.2003) US 60/523,337 20 November 2003 (20.11.2003) US

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[Continued on next page]

(54) Title: HYDRAULIC REGENERATIVE BRAKING SYSTEM FOR A VEHICLE



(57) Abstract: A hydraulic regenerative braking system for a vehicle is provided. The system includes two hydraulic machines, each of which is disposed proximate a corresponding vehicle wheel. A transformer is in communication with each of the hydraulic machines, and with a pair of accumulators. Each of the hydraulic machines is operable as a pump, pumping fluid to at least one of the accumulators when the vehicle is braking. Each of the hydraulic machines is also operable as a motor, receiving pressurized fluid and transferring torque to the vehicle wheels. The transformer is operable to vary the pressure of the fluid received by the hydraulic machines.







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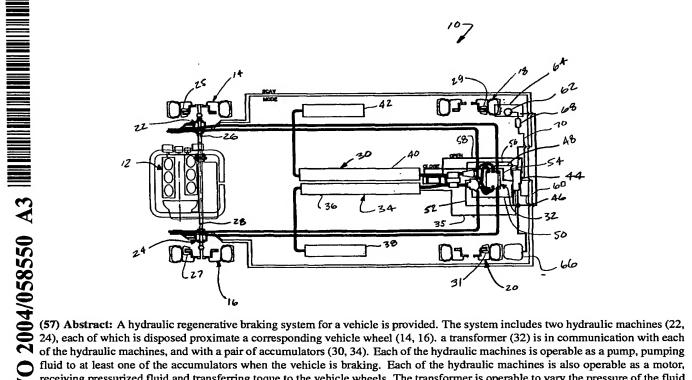
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(54) Title: HYDRAULIC REGENERATIVE BRAKING SYSTEM FOR A VEHICLE



fluid to at least one of the accumulators when the vehicle is braking. Each of the hydraulic machines is also operable as a motor, receiving pressurized fluid and transferring toque to the vehicle wheels. The transformer is operable to vary the pressure of the fluid received by the hydraulic machines.







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US CL	: 303/152,151					
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	cumentation searched (classification system followed 03/152,151	by classification symbols)				
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Documentation	on searched other than minimum documentation to the	e extent that such documents are included	in the fields searched			
Electronic da	ta base consulted during the international search (nar	ne of data base and, where practicable, s	earch terms used)			
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C. DOC	UMENTS CONSIDERED TO BE RELEVANT	~				
Category *	Citation of document, with indication, where a	opropriate, of the relevant passages	Relevant to claim No.			
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	transformer 10, accumulators 11,12					
Т	US 6,719,080 B1 (GRAY, JR.)		1,20			
A	US 4,883,141 A (WALKER) 28 Nov. 1989 (28.11.	1080)				
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A	US 6,033,040 A (INAGAKI et al)	·				
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Further	documents are listed in the continuation of Box C.	See patent family annex.				
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	defining the general state of the art which is not considered to be	date and not in conflict with the applic principle or theory underlying the inve	ation but cited to understand the			
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"P" document	published prior to the international filing date but later than the	"&" document member of the same patent	family			
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Mail Stop PCT, Attn: ISA/US		Robert A. Siconolfi Whiship				
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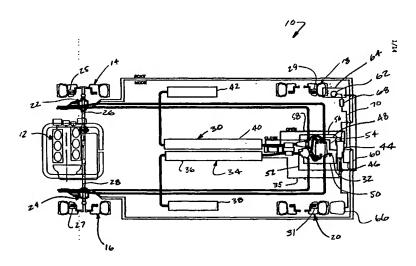
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Declaration under Rule 4.17:

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[Continued on next page]

(54) Title: HYDRAULIC REGENERATIVE BRAKING SYSTEM FOR A VEHICLE



(57) Abstract: A hydraulic regenerative braking system for a vehicle is provided. The system includes two hydraulic machines (22, 24), each of which is disposed proximate a corresponding vehicle wheel (14, 16). a transformer (32) is in communication with each of the hydraulic machines, and with a pair of accumulators (30, 34). Each of the hydraulic machines is operable as a pump, pumping fluid to at least one of the accumulators when the vehicle is braking. Each of the hydraulic machines is also operable as a motor, receiving pressurized fluid and transferring toque to the vehicle wheels. The transformer is operable to vary the pressure of the fluid received by the hydraulic machines.



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